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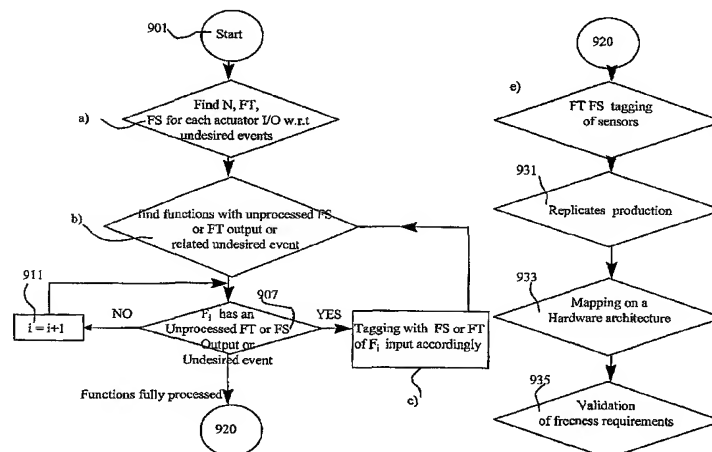
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(54) Title: DESIGN OF SAFETY CRITICAL SYSTEMS



(57) Abstract: A method is disclosed of producing a system architecture comprising a plurality of electrical devices connected to each other, said system preferably comprising a fault tolerant system, the method including: a) identifying a set of undesirable events and ascribing to each of said undesirable events an indicator of their severity; b) associating where possible each said undesirable event with one or more actuators of said system architecture; c) developing a functional specification of an initial architecture proposed for implementation of said system architecture; d) refining on said functional specification the fault tolerance requirements; e) producing replicates in said functional specification together with attached indicators of independence of said replicates, f) defining a hardware structure for said system architecture; g) mapping of said functional specification onto said hardware structure; and h) verifying automatically that said indicators of independence are preserved during mapping.

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